A Survey of the Butterfly Fauna of Jatun Sacha, Ecuador (Lepidoptera: Hesperioidea and Papilionoidea)

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Abstract. The first extensive butterfly survey of the upper Río Napo basin in eastern Ecuador was conducted from 1990 to 1993. A total of 811 species was recorded at Jatun Sacha Biological Reserve. Based on species richness comparisons with a similar site in southern Peru and extrapolations from ithomiine diversity, Jatun Sacha is estimated to have approximately 1300 species of butterflies. Species richness is compared with two other Amazonian sites (Pakitza, Peru, 1300 species and Cacaulandia, Brazil, 843 species). Species and generic compositions are more similar between Pakitza and Jatun Sacha than Cacaulandia. This similarity may be due to environmental factors. A greater percentage of Nymphalidae and a lower percentage of Hesperiidae and Lycaenidae occur at the two somewhat disturbed sites (Jatun Sacha and Cacaulandia) than the less disturbed site (Pakitza). Of the 228 species common to all three sites, more nymphalid butterfly species were found than expected based on observed species in each family.

Key Words: Butterfly diversity, community similarities, estimations of species richness

Introduction

The Amazon basin covers an area approximately 6 million square kilometers and houses the world's greatest diversity of plant and animal life (Erwin 1988, Dinerstein et al. 1995). Insects are the most diverse taxon in the neotropics, yet they have been poorly studied in this vast area (National Academy 1992, Lamas 1989 and ref. therein, Raven 1988, Reid & Miller 1989). Even for taxonomically well known insect groups, such as the butterflies, there exist large gaps in our understanding of tropical species richness and factors influencing diversity (DeVries 1994, Ackery 1986). One major hindrance is the lack of basic information available on natural history and species distributions for most Amazonian butterflies (Ackery 1986, DeVries 1994, DeVries et al. 1997). Inventories from specific localities can be useful in investigating changes in species compositions across landscapes, but most of the current faunal information on Amazonian butterfly communities are from Peru (Lamas 1985, 1989, Robbins et al. 1996) and areas in Brazil (Brown 1984, 1991, Emmel & Austin 1990, Mielke 1994). There are few published surveys of butterfly faunas in eastern Ecuador and Co-

Paper submitted 25 August 1997

lumbia (Lamas 1981). Therefore our understanding of the patterns of butterfly diversity in these areas is very incomplete.

Biologically significant areas, such as along the eastern base of the Andes, offer the opportunity to research factors influencing diversity and are of particular importance to study. The eastern flank is postulated to be an area very diverse in plant, bird, and butterfly life (Dinerstein et al. 1995, Robbins & Opler 1996, Gentry 1988a). Gentry (1988b) found that areas of high rainfall and weakly defined wet and dry seasons correlated with areas of high plant diversity. In Ecuador the only protected area in this zone is Jatun Sacha Biological Station, located in the upper Napo basin. A flora survey at Jatun Sacha found over 200 species of trees in one hectare plots on the reserve (Neill & Palacios 1989). Surveys of the fauna on the reserve have found high species richness as well, including an extensive bird survey, which has recorded over 500 species (B. Bochan, pers. comm.). This diversity at Jatun Sacha suggests the area might be equally rich in butterflies.

Here I report a survey of the Jatun Sacha butterfly fauna, which can serve as a baseline for studies of diversity patterns at Jatun Sacha. It can also be used for comparative studies with other localities in the region (DeVries 1994, 1996). In this paper I compare and contrast the taxonomic compositions at Jatun Sacha with two other sites in the Amazon basin.

Study Sites

Jatun Sacha Biological Station is located 30 km east of the base of the Andes (01° 04'S; 77° 36'W) and lies between the confluence of the Napo and Arahuno rivers, its natural boundaries. Elevation varies from 400m to 450m. The uplands, typified by steep, low hills and narrow ridges with small streams in the valleys, comprise the majority of the land. There is also a small tract (100 hectares) in the Rio Napo floodplain with alluvial soils and seasonal flooding. The Holdridge system would classify the lowland forests of this area as Tropical Wet Forest (Cañadas 1983). Rainfall data, recorded since 1986, averages 3700mm annually, with no definite dry season. However, April through July are generally the wettest months and December through February the driest months. Major floods of streams and rivers occurs throughout the year but are more common during the wetter months. Soil fertility is relatively rich for tropical wet forests, especially in phosphorous and calcium, when compared to other lowland forest sites (Clinebell et al. 1995). Storms are infrequent in the area but often cause multiple treefalls, leaving the forest in various stages of succession (D. Neill & W. Palacios, unpublished).

The land-use patterns in the vicinity of Jatun Sacha have undergone rapid changes in the last decade. Before the early 1980's the area was sparsely populated by native Quichuans and accessed only by rivers. A road built in 1986 bisected the reserve at its northern end along the Río Napo and greatly increased access to the area. The influx of small scale farmers and portable sawmills resulted in deforestation in areas accessible by the road. Currently, tracts of land owned by farmers adjacent to the road typically have 40 to 70

percent of the land cleared. Tracts in the interior are more pristine, from 50 to 100 percent primary forest. Jatun Sacha continues to expand its reserve and purchases lands in a piecemeal fashion as funds and land become available. Thus the reserve is a patchwork of habitats. Its central core is mostly primary forest (70%), and its edges are a mosaic of primary forest, secondary forest, scrub, and pasture land (D. Neill & W. Palacios, unpublished).

A brief description is presented below of the two comparative sites, Pakitza and Cacaulandia. More complete descriptions are available from Erwin (1991) for Pakitza and Emmel and Austin (1990) for Cacaulandia. Pakitza is a biological station in the Reserved Zone of Parque Nacional Manu. It is located in Madre de Dios drainage basin in Peru along the foothills of the eastern Andes in a similar geographical zone as Jatun Sacha. The butterfly survey for Pakitza was comprehensive and yielded 1300 species (Robbins et al. 1996). The survey from Cacaulandia was conducted on a private ranch in Rondonia, Brazil. Located in the rolling hills and flat plains of the Amazon basin, it has both intact forest and disturbed areas. A total of 843 species of butterflies was recorded by Emmel and Austin (1990), although continued surveys have increased this total number to approximately 1500 species (Austin & Emmel 1996, cited as "unpublished data"). The area of Cacaulandia is ecologically less similar to Jatun Sacha than Pakitza, but faces similar pressures from development.

Materials and Methods

The survey at Jatun Sacha was conducted from August 1990 to October 1993. Hours in the field devoted to collection varied by month but covered all the months of the year, with the exceptions of December 1990 and 1991, and October, 1992, and data was not gathered to quantify collection effort. Collection was concentrated in a 3 km area surrounding the station facilities. As the reserve accumulated more land, a few specimens were taken in a 10 km area around the station. Specimens were captured with hand held nets, butterfly traps baited with rotting fruits (DeVries 1987, 1988), artificial bait (Lamas et al. 1994), and by rearing field collected larvae. Extensive use of butterfly traps at Jatun Sacha was conducted during an ecological study that examined spatial and temporal diversity of the fruit feeding butterfly community (DeVries et al. 1997). Material from that study is included here. The study took place from August, 1992 to October, 1993 and during that time, baited traps were placed in both the canopy and understory for seven days a month, a total of 105 trap days. Additional sources for species included donated specimens or field records offered from various visiting scientists.

Identifications were conducted by comparison of my material to specimens in the following institutions and museums: Allyn Museum of Entomology of Florida Museum of Natural History, American Museum, Museum of Comparative Zoology, and National Museum of Natural History. Various specialists identified particular taxonomic groups: D. Harvey (Riodinidae), L. Miller (Satyrinae), S. Nicolay (Hesperiidae), and R. Robbins (Lycaenidae). Due to time constraints in the preparation and identification, some specimen determinations are tentative and are des-

Table 1. Taxonomic Compositions of Butterfly Families at Jatun Sacha, Cacaulandia, and Pakitza. Number of species are listed in parenthesis following the percentage of species within each family.

Family	Jatun Sacha	Cacaulandia	Pakitza
Hesperiidae	25% (198)	27% (231)	34% (442)
Papilionidae	3% (26)	2% (18)	2% (26)
Pieridae	3% (27)	4% (29)	2% (26)
Nymphalidae	38% (307)	33% (275)	28% (364)
Riodinidae	24% (194)	24% (203)	20% (260)
Lycaenidae	7% (59)	10% (87)	14% (182)

ignated with question marks. A synoptic collection has been deposited in the Museo de Ecuatoriana Nacional in Quito, Ecuador.

For comparative work among the three sites, the percent of species occurring in each family was tabulated, and a test for homogeneity across the families was calculated using a 2x2 contingency table. To compare similarity in species assemblages between the three sites, coefficient of community indices (Pielou 1974) were calculated in pairwise comparisons between Jatun Sacha and Pakitza, Jatun Sacha and Cacaulandia, and Pakitza and Cacaulandia. Only those identified to species (species similarities) or genus (generic similarities) were used in calculations. Lycaenidae was not used in due to poor taxonomic resolution at the genus level and lack of identifications in the Cacaulandia survey (59 of the 87 species were unidentified). Using these adjusted species numbers, percentages were again calculated for family compositions, which were used in contrasting the expected and observed species common to all three sites.

Results

A total of 811 species were recorded at the reserve by the end of 1993 (Appendix 1). The taxonomic composition of the butterfly fauna is as follows: Hesperiidae, 198 spp. (25%), Papilionidae, 26 spp. (3%), Pieridae, 27 spp. (3%), Nymphalidae, 307 spp. (38%), Riodinidae, 194 spp. (24%), and Lycaenidae, 59 spp. (7%). Within Nymphalidae, 56 species of Ithomiinae are those reported by Beccaloni (1995), who conducted a thorough study of this group. Temporal variations in richness and abundance were generally noted for the butterfly families, although quantitative data was collected only for the fruit-feeding nymphalids. The fruit-feeders were more common during the wetter months (DeVries et al. 1997), and many specimens collected during this period were fresh, indicating a recent emergence. During this same time period, other families were observed to be much less abundant, although certain species could be common (*Eurybia dardus, Urbanus simplicius, "Thecla" tephraeus gr*). Hesperiidae, Riodinidae, and to some extent, Lycaenidae, were more abundant as the rainfall decreased in August and September. Differences were noted in the abundance of families and individual species from year to year,

Table 2. Coefficient of Community Indices for Jatun Sacha, Pakitza, and Cacaulandia.

	Species similarities	Generic similarities
Jatun Sacha-Pakitza	49	81
Jatun Sacha-Cacaulandia	45	75
Pakitza-Cacaulandia	38	6

especially among Riodinidae and Lycaenidae. Some species abundance patterns were irregular. For example, I did not see *Stalachtis euterpe* until January, 1993, when it was common for several months along the ridges in the primary forest. Other examples include *Metacharis regalis* and *Emesis temesa.*

Family compositions varied significantly among the three sites ($p>0.05$). Jatun Sacha and Cacaulandia shared a greater similarity in family compositions than any other pairwise comparisons (Table 1). The combination of Riodinidae and Lycaenidae percentages is nearly identical in all three sites (31% to 34%). However, the percentages of Lycaenidae are considerably lower at Jatun Sacha, and to a lesser extent, Cacaulandia, than at Pakitza. In contrast, Jatun Sacha shared a greater number of species and genera with Pakitza rather than Cacaulandia. Coefficient of community values ranked Jatun Sacha and Pakitza with greatest similarity and Pakitza and Cacaulandia with the least similarity (Table 2). Interestingly, only 228 species were common to all three sites. Of those 228 species, Nymphalidae accounted for 53% (121 species) of the total number. Listed in order of abundance, the numbers of species for the other butterfly families were: Hesperiidae (56), Riodinidae (32), Papilionidae (12), and Pieridae (7). The number of observed overlapping nymphalid species was greater than expected when calculated using the family percentages (minus unidentified species and Lycaenidae). For example, the adjusted family compositions for Nymphalidae range from 33% (Pakitza) to 43% (Jatun Sacha). Using the higher percentage, 98 species of the total 228 were expected to be nymphalids, although 121 were actually found to be overlapping. In contrast, the number of overlapping hesperiid species was lower than expected.

Discussion

The survey conducted at Jatun Sacha was aimed at developing a baseline understanding of the butterfly community of the area. A large portion of the fauna undoubtably remains unsampled. This conclusion is supported by the fact that unrecorded species were collected up to the end of the survey time. In addition, preliminary identifications for certain groups have probably underestimated the number of butterfly species actually collected. Because field collection was not standardized, estimations of the total species richness at Jatun Sacha can not be generated through rigorous statisti-

cal programs (DeVries et al. 1997). Nonetheless, some estimation can be made from comparisons of inventories at similar localities, such as at Pakitza. Pakitza and Jatun Sacha are both located along the eastern edge of the lowland rainforest and share similar elevation, temperature, and annual rainfall, although Jatun Sacha is more aseasonal than Pakitza. Given these similar environmental factors, it is estimated that 1200 to 1300 species potentially occur at Jatun Sacha. This estimate is supported by applying the model proposed by Beccaloni and Gaston (1995), in which total ithomiine richness from an area is used to predict overall species richness. Beccaloni and Gaston found that ithomiines were, on average, 4.5% of the total species for an area. Given 58 species of ithomiines at Jatun Sacha, approximately 1300 species of butterflies are predicted to occur there. This suggests that a third of the fauna has yet to be recorded, illustrating the importance of further survey work.

Comparing faunal lists from different study sites is confounded by differences in sampling methods and climatic and ecological factors (DeVries 1994). Misidentifications of species and nomenclature changes can also yield misleading results. All of these factors could have influenced comparisons of the species assemblages between the Jatun Sacha, Pakitza, and Cacaulandia, however differences in sampling methodologies was probably most influential. Much of the early sampling in Cacaulandia was conducted by participants in tour groups who may have selectively collected colorful butterflies over some of the more drab species. Since the initial list of butterflies was published from Cacaulandia (Emmel & Austin 1990), the authors have continued their sampling effort and have documented many more species (Austin & Emmel 1996). Patterns of diversity reported here may change when compared with the forthcoming update to the survey. Sampling at Jatun Sacha used bait traps more extensively than Pakitza or Cacaulandia. At Jatun Sacha, 189 species were trapped at rotting fruit (23% of the butterfly fauna). At Pakitza, 130 species were trapped (10% of the butterfly fauna) (Robbins et al. 1996). The survey at Pakitza was conducted on a larger scale than the other two, with intense collecting and a greater number of experts available to identify species, although field crews varied with each sampling period. These differences in sampling have influenced the species recorded, and consequently, the compositions of the various groups.

Environmental variables, most notably climatic factors, are most often correlated with species richness and diversity (Wright et al. 1993). In this study the hypothesis is supported by the results of the generic and species similarities. Jatun Sacha and Pakitza had the highest coefficient of community. Pakitza and Cacaulandia, although geographically closest among the three sites were actually the most dissimilar. This underscores the importance of local conditions on determining species compositions.

Disturbance is another factor influencing species compositions between the three sites. Forest areas with mild disturbances, such as those that exist in Cacaulandia and Jatun Sacha, can experience increases in butterfly di-

versity in certain groups, such as Nymphalidae (Brown 1982; but see also DeVries et al. 1997). Butterfly species common to open, disturbed areas are rare or absent at Pakitza (Robbins et al. 1996), but are quite common at Jatun Sacha along the road bisecting the reserve. The low species richness of Hesperiidae and Lycaenidae recorded at Jatun Sacha and Cacaulandia could also reflect disturbance, especially at Jatun Sacha. A lepidopterist who has been collecting in the Upper Napo area since 1978 has noted a great decrease in the species and abundance of the Hesperiidae over the last decade as developmental pressures increased (S. Nicolay, pers. comm.).

From the comparisons of the overlapping species, nymphalid species were most common and found at greater numbers than expected. This suggests broader distributions of nymphalids than other butterfly families. This may be due to the wide dispersing capabilities of many nymphalids, which have been correlated with greater distributions (Hanski et al. 1993). It could also reflect broader hostplant ranges for nymphalids or more specialized, and hence, localized host use by other butterfly families. With our limited knowledge of host use even in well studied areas such as Costa Rica (DeVries 1987, 1996; DeVries et al. 1994), examining these broader biogeographical patterns must await further investigations (but see Ackery 1988).

Human influence outside of Jatun Sacha most likely has impacted the butterfly fauna. Species inventories conducted while the area contains a high percentage of pristine forest could be compared with future inventories in a potentially much more disturbed landscape. Because degradation of the upper Napo basin will continue, there is a critical need for more research. For too many species, little is known beyond their site records. A great deal remains to be discovered to complete our understanding of the butterfly fauna, not only in documentation of the species diversity, but also their ecology, evolution, and population dynamics.

Acknowledgements. I thank the following for contributing specimens to the list: Dave Arenholz, George Beccaloni, Marion Murray, Andrew Neild, Stan Nicolay, Carla Penz, Karina Soria, Alejandro Suárez, Gabriel Tapuy, and the students of the Save the Rainforest. The survey list would not have been possible without the time and effort to identify specimens by Stan Nicolay (Hesperiidae), George Beccaloni (Ithomiinae), Lee Miller (Satyrinae), Don Harvey, Dave Arenholz, and Phil DeVries (Riodinidae), and Bob Robbins (Lycaenidae). This manuscript was improved by changes suggested by George Beccaloni (Natural History Museum), Chris Carlton (Louisiana State University), Phil DeVries (University of Oregon), Sam Messier (University of Colorado), David Neill (Missouri Botanical Garden), Dorothy Prowell (Louisiana State University), and Bob Robbins (National Museum of Natural History). This work was possible through the support of Fundacíon Jatun Sacha and the United States Peace Corps.

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APPENDIX 1

The following is a list of the butterflies collected at Jatun Sacha Biological Station. A question mark (?) following a name indicates questionable identification of the species. Species designated as "unknown" could not be identified to genus or species. The list follows the higher taxonomic classification of Evans (1951, 1952, 1953, 1955) for Hesperiidae, Tyler *et al.* (1994) for Papilionidae, Klots (1933) for Pieridae, Harvey (1991) for Nymphalidae, Forster (1964) for Satyrinae, and Harvey (1987) for Riodinidae.

Hesperiidae 198

Pyrrhopyginae: 4
Elbella theseus Bell, 1933
Passova passova Evans, 1951
Pyrrhopyge proculus cintra Evans, 1951
Pyrrhopyge aziza lexos Evans, 1951

Pyrginae: 107
Achylodes thraso thraso (Hübner, 1807)
Achylodes busirus heros (Ehrmann, 1909)
Aguna coelus (Cramer, 1782)
Aguna clina Evans, 1952
Aguna arunce (Hewitson,1867)
Anastrus obscurus narva Evans, 1953
Anastrus sempiternus simplicior (Möschler, 1876)
Anisochoria pedaliodina Butler, 1870
Antigonus nearchus (Latreille, 1824)
Antigonus mutilatus Hopffer, 1874
Antigonus erosus (Hübner, 1812)
Astraptes fulgerator azul Reakirt, 1866
Astraptes alardus alardus (Stoll, 1790)
Astraptes talus (Cramer, 1777)
Astraptes fulgor (Hayward, 1938)
Astraptes alector hopfferi (Plötz, 1882)
Astraptes cretatus cretatus (Hayward, 1939)
Astraptes anaphus anaphus (Cramer, 1777)
Autochton neis (Plötz, 1882)
Autochton longipennis (Geyer, 1832)
Bolla mancoi (Lindsey, 1925)
Bolla cupreiceps (Mabille, 1889)
Bungalotis erythus Cramer, 1775
Cabrius procas purda Evans, 1952
Calliades zeutus (Möschler, 1879)
Camptopleura auxo (Möschler, 1878)
Carrhenes fuscescens Mabille, 1891
Celaenorrhinus jao (Mabille, 1889)
Celaenorrhinus shema shema (Hewitson, 1877)
Celaenorrhinus syllius (Felder & Felder, 1862)
Charidia lucaria pocus Evans, 1953
Chrysoplectrum perniciosus perniciosus (Herrich-Schäffer, 1869)
Cycloglypha caeruleonigra Mabille, 1904
Cyclosemia pedro Williams & Bell, 1940
Cyclosemia lathaea Hewitson, 1878
Dyscophellus euribates euribates (Cramer, 1782)
Dyscophellus sp.
Dyscophellus ramusis Stoll, 1781
Ebrietas evanidus (Mabille, 1897)
Ebrietas infanda (Butler, 1876)
Entheus priassus telemus Mabille, 1898
Epargyreus socus dicta Evans, 1952
Eracon paulinus (Cramer, 1782)
Gorgythion begga plauta (Möschler, 1867)
Haemactis sanguinalis (Westwood, 1852)
Helias phalaenoides phalaenoides (Hübner, 1812)
Heliopetes alana (Reakirt, 1868)
Hyalothyrus neleus neleus (Linnaeus, 1852)
Mictris crispus crispus (Herrich-Schäffer, 1869)
Milanion hemes pemba Evans, 1953
Morvina morvus Plötz, 1884
Mylon cajus (Plötz, 1884)
Mylon illineatus illineatus (Mabille & Boullet, 1917)
Mylon menippus (Fabricius, 1776)
Narcosius mura (Williams, 1927)
Narcosius colossus (Herrich-Schäffer, 1869)
Nisoniades castolus (Hewitson, 1878)
Nisoniades bessus hecales (Hayward, 1940)
Ouleus fridericus fridericus (Geyer, 1832)
Ouleus calavius calavius (Godman & Salvin, 1895)
Ouleus matria Evans, 1953
Paches trifasciatus Lindsey, 1925
Pellicia dimidiata dimidiata (Herrich-Schäffer, 1870)
Phanus vitreus (Cramer, 1782)
Phareas coeleste Westwood, 1852
Phocides metrodorus metrodorus Bell, 1932
Plumbago plumbago (Plötz, 1884)
Polyctor polyctor polyctor (Prittwitz, 1868)
Polythrix eudoxus (Cramer, 1782)
Polythrix ceculus (Herrich-Schäffer, 1869)
Porphyrogenes passalus passalus (Herrich-Schäffer, 1869)
Potamanaxas hirta hirta (Weeks, 1901)
Potamanaxas flavofasciata flavofasciata (Hewitson, 1870)
Pyrdalus corbulo (Stoll, 1781)
Pyrgus oileus Linnaeus, 1767
Pythonides assacla Mabille, 1883
Pythonides herrenius Geyer, 1838
Pythonides jovianus jovianus (Stoll, 1782)
Quadrus deyrollei porta Evans, 1952
Quadrus cerialis (Cramer, 1782)
Sostrata festiva (Erichson, 1848)
Sostrata pusilla pusilla (Godman & Salvin, 1895)
Spathilepia clonius (Cramer, 1775)
Spioniades artemidas (Cramer, 1782)
Staphylus balsa (Bell, 1937)
Staphylus lizeri (Hayward, 1938)

Tarsoctenus praecia plutia (Hewitson, 1857)
Tarsoctenus papias Hewitson, 1857
Tarsoctenus corytus corba Evans, 1952
Telemiades epicalus sila Evans, 1953
Telemiades centrides Hewitson, 1870
Telemiades amphion misitheus (Mabille, 1888)
Telemiades penidas (Hewitson, 1867)
Typhedanus undulatus (Hewitson, 1867)
Typhedanus orion (Cramer, 1779)
Urbanus teleus (Hübner, 1821)
Urbanus simplicius (Stoll, 1791)
Urbanus pronus Evans, 1952
Urbanus virescens (Mabille, 1877)
Urbanus viterboana viterboana (Ehrmann, 1907)
Urbanus pronta Evans, 1952
Urbanus esta Evans, 1952
Urbanus doryssus doryssus (Swainson, 1831)
Urbanus dorantes dorantes (Stoll, 1791)
Urbanus albimargo takuta Evans, 1952
Urbanus procne (Plötz, 1881)
Xenophanes tryxus (Cramer, 1782)

Hesperiinae: 87
Anatrytone sarah (Burnes, 1994)
Anthoptus epictetus (Fabricius, 1793)
Arita arita (Schaus, 1902)
Aroma aroma Hewitson, 1867
Artines aepitus (Geyer, 1832)
Callimormus radiola radiola (Mabille, 1897)
Carystina lysiteles Mabille, 1891
Carystoides sicania orbius (Godman, 1901)
Carystoides lila Evans, 1955
Chloeria psittacina Felder, 1867
Cobalopsis potaro (William & Bell, 1931)
Cobalopsis nero (Herrich-Schäffer, 1869)
Cobalus virbius virbius (Cramer, 1777)
Conga chydea (Butler, 1870)
Corticea corticea corticea (Plötz, 1883)
Cymaenes tripunctata alumna (Butler, 1877)
Cymaenes cavalla Evans, 1955
Cynea megalops (Godman, 1900)
Damas clavus (Herrich-Schäffer, 1869)
Decinea percosius (Godman, 1900)
Decinea sp.
Decinea derisor (Mabille, 1891)
Ebusus ebusus (Cramer, 1782)
Eutocus quichua Lindsey, 1925
Eutychide subcordata subcordata (Herrich-Schäffer, 1869)
Eutychide complana (Herrich-Schäffer, 1869)
Flaccilla aecas Stoll, 1781
Hylephila phylaeus phylaeus (Drury, 1773)
Justinia phaetusa phaetusa (Hewitson, 1866)
Lento lento Mabille, 1878
Lycas boisduvalii Ehrmann, 1909
Metron nr. chrysogastra
Mnasilus allubita Butler, 1877
Moeris vopiscus vopiscus (Herrich-Schäffer, 1869)
Moeris striga Geyer, 1832
Molo mango mango (Guenee, 1865)
Molo petra Evans, 1955
Morys geisa geisa (Möschler, 1878)
Mucia sp.
Nastra insignis (Plötz, 1882)
Niconiades nikko Hayward, 1948
Nyctelius nyctelius (Latreille, 1824)
Orses cynisca (Swainson, 1821)
Oxynthes corusca (Herrich-Schäffer, 1869)
Panoquina fusina fusina (Hewitson, 1868)
Panoquina evadnes (Stoll, 1781)
Papias proximus (Bell, 1934)
Papias integra Mabille, 1891
Paracarystus menestries rona (Hewitson, 1866)
Parphorus decora (Herrich-Schäffer, 1869)
Parphorus storax storax (Mabille, 1891)
Penicula crista Evans, 1955
Penicula criska jon Nicolay, 1980
Penicula bryanti (Weeks, 1906)
Perichares philetes dolores (Reakirt, 1868)
Phanes almoda (Hewitson, 1866)
Pompeius pompeius (Latreille, 1824)
Quinta cannae (Herrich-Schäffer, 1869)
Racta sp.
Saliana salius (Cramer, 1776)
Saliana esperi Evans, 1955
Saliana antoninus Latrielle, 1824
Saliana triangularis (Kaye, 1913)
Saturnus tiberius suffuscus (Hayward, 1940)
Sodalia sodalis Butler, 1877
Talides sergestus Cramer, 1775)
Talides sinois sinois Hübner, 1819
Telles arcalaus (Cramer, 1782)
Thargella caura caura (Plötz, 1882)
Thespias dalman Latreille, 1824

Thoon sp.
Thoon ponka Evans, 1955
Thoon taxes (Godman, 1900)
Thoon modius (Mabille, 1889)
Thracides phidon (Cramer, 1779)
Thracides smaragdulus (Herrich-Schäffer, 1869)
Vehilius stictomenes stictomenes Butler, 1877
Vehilius illudens Mabille, 1891
Vehilius vetula (Mabille, 1878)
Vehilius inca (Scudder, 1872)
Venas caeruleans (Mabille, 1828)
Vettius phyllus phyllus (Cramer, 1777)
Vettius richardi (Weeks, 1906)
Vettius artona (Hewitson, 1868)
Vettius marcus marcus (Fabricius, 1787)
Xeniades orchamus orchamus (Cramer, 1777)
Zenis jebus melaleuca (Plötz, 1882)

Papilionidae: 26
Battus crassus crassus (Cramer, 1777)
Battus polydamas polydamas (Linnaeus, 1758)
Battus belus varus (Kollar, 1850)
Eurytides dolicaon ?
Heraclides torquatus torquatus (Cramer, 1777)
Heraclides thoas cinyras (Ménétriés, 1857)
Heraclides isidorus flavescens (Oberthür, 1880)
Heraclides hyppason hyppason (Cramer, 1776)
Heraclides chiansiades chiansiades (Westwood, 1872)
Heraclides astyalus phanias (Rothschild & Jordan, 1906)
Heraclides androgeus androgeus (Cramer, 1776)
Mimoides ariarathes gayi (Lucas, 1852)
Mimoides xynias (Hewitson, 1867)
Mimoides pausanias pausanias (Hewitson, 1852)
Parides anchises drucei (Butler, 1874)
Parides aeneas bolivar (Hewitson, 1850)
Parides vertumnus bogotanus (Felder & Felder, 1864)
Parides neophilus olivencius (Bates, 1861)
Parides erithalion guillerminae (Pischedda & Racheli, 1986)
Parides sesostris sesostris (Cramer, 1780)
Parides lysander brissonius (Hübner, 1819)
Parides chabrias chabrias (Hewitson, 1852)
Protesilaus telesilaus telesilaus (Felder & Felder, 1864)
Protographium agesilaus autosilaus (Bates, 1861)
Protographium thyastes thyastinus (Oberthür, 1880)
Pterourus zagreus neyi (Niepelt, 1909)

Pieridae 27
Aphrissa statira (Cramer, 1777)
Archonias bellona (Cramer, 1776)
Charonias eurytele (Hewitson, 1853)
Cunizza hirlanda (Stoll, 1791)
Dismorphia theucharila (Doubleday, 1848)
Dismorphia amphiona Cramer, 1780
Enantia melite (Linnaeus, 1763)
Enantia lina (Herbst, 1792)
Eurema daira (Godart, 1819)
Eurema sp.
Eurema albula (Cramer, 1776)
Eurema xanthochlora (Kollar, 1850)
Itaballia pisonis (Hewitson, 1861)
Itaballia demophile (Linnaeus, 1763)
Leptophobia aripa (Boisduval, 1836)
Leucidia brephos (Hübner, 1809)
Moschoneura pinthaeus (Linnaeus, 1758)
Patia oresis (Boisduval, 1836)
Perrhybis pyrrha (Cramer, 1782)
Perrhybis lorena (Hewitson, 1852)
Phoebis rurina (Felder & Felder, 1861)
Phoebis philea (Linnaeus, 1763)
Phoebis argante (Fabricius, 1775)
Phoebis trite (Linnaeus, 1758)
Pieriballia mandella (Felder & Felder, 1861)
Pyrisitia venusta (Boisduval, 1836)
Pyrisitia nise (Cramer, 1776)

Nymphalidae 307

Heliconiinae 22
Actinote sp.
Actinote pellenea Hübner, 1821
Agraulis vanillae (Linnaeus, 1763)
Dione juno (Cramer, 1780)
Dryadula phaetusa (Linnaeus, 1758)
Dryas iulia (Fabricius, 1775)
Eueides tales (Cramer, 1776)
Eueides aliphera (Godart, 1819)
Eueides isabella isabella (Cramer, 1782)
Eueides lampeto acacetes Hewitson, 1869
Eueides lybia (Fabricius, 1775)

Eueides vibilia (Godart, 1819)
Heliconius erato lativitta Butler, 1877
Heliconius hecale quitalena Hewitson, 1853
Heliconius elevatus elevatus Nöldner, 1901
Heliconius wallacei Reakirt, 1866
Heliconius sara (Fabricius, 1793)
Heliconius melpomene aglaope Felder & Felder, 1862
Heliconius numata euphone Felder & Felder, 1862
Laparus doris (Linnaeus, 1771)
Neruda aoede bartletti Druce, 1876
Philaethria dido (Linnaeus, 1763)

Nymphalinae 20
Anartia amathea (Linnaeus, 1758)
Anartia jatrophae (Linnaeus, 1763)
Anthanassa drusilla (Felder & Felder, 1861)
Castilia perilla (Hewitson, 1852)
Castilia angusta (Hewitson, 1868)
Castilia ofella (Hewitson, 1864)
Eresia clara clara Bates, 1864
Eresia eunice eunice (Hübner, 1807)
Eresia nauplius (Linnaeus, 1758)
Eresia sp.
Eresia perna Hewitson, 1852
Eresia pelonia pelonia Hewitson, 1852
Hypanartia lethe (Fabricius, 1793)
Junonia evarete (Cramer, 1870)
Metamorpha elissa Hübner, 1819
Phyciodes sp.
Phyciodes aveyrana (Bates, 1864)
Siproeta stelenes Linnaeus, 1758
Tegosa claudina (Eschscholtz, 1821)
Telenassa burchelli (Moulton, 1909)

Limenitidinae 78
Adelpha boeotia (Felder & Felder, 1867)
Adelpha delinita (Fruhstorfer, 1913)
Adelpha iphiclus (Linnaeus, 1758)
Adelpha erotia (Hewitson, 1847)
Adelpha cytherea (Linnaeus, 1758)
Adelpha celerio (Bates, 1864)
Adelpha boreas (Butler, 1866)
Adelpha sp. 3
Adelpha sp. 2
Adelpha lerna (Hewitson, 1847)
Adelpha melanthe (Bates, 1864)
Adelpha sp. 1
Asterope degandii (Hewitson, 1850)
Baeotus japetus (Staudinger, 1885)
Baeotus deucalion (Felder & Felder, 1860)
Baeotus amazonicus (Riley, 1919)
Batesia hypochlora (Felder & Felder, 1862)
Biblis hyperia (Cramer, 1780)
Callicore cynosura (Doubleday, 1847)
Callicore lyca (Doubleday, 1847)
Callicore hystaspes (Fabricius, 1782)
Callicore hesperis (Guérin, 1844)
Callicore eunomia (Hewitson, 1853)
Callicore cyllene (Doubleday, 1847)
Catacore kolyma (Hewitson, 1852)
Catonephele acontius acontius (Linnaeus, 1758)
Catonephele numilia numilia (Cramer, 1776)
Colobura dirce (Linnaeus, 1758)
Diaethria clymena (Cramer, 1776)
Dynamine geta (Godman & Salvin, 1878)
Dynamine racidula (Hewitson, 1852)
Dynamine zenobia (Bates, 1865)
Dynamine glauce (Bates, 1865)
Dynamine gisella (Hewitson, 1852)
Dynamine athemon (Linnaeus, 1758)
Dynamine artemisia (Fabricius, 1793)
Dynamine anubis (Hewitson, 1859)
Ectima iona (Doubleday, 1848)
Ectima lirides (Staudinger, 1885)
Eunica eurota eurota (Cramer, 1776)
Eunica sophonisba agele Seitz, 1915
Eunica norica occia Fruhstorfer, 1909
Eunica alpais alpais (Godart, 1824)
Eunica mygdonia mygdonia (Godart, 1824)
Eunica marsolia fasula Fruhstorfer, 1909
Eunica amelia erroneata Oberthür, 1916
Eunica clytia (Hewitson, 1852)
Haematera pyramus (Fabricius, 1782)
Hamadryas laodamia laodamia (Cramer, 1777)
Hamadryas arinome arinome (Lucas, 1853)
Hamadryas amphinome amphinome (Linnaeus, 1767)
Hamadryas feronia feronia (Linnaeus, 1758)
Hamadryas chloe chloe (Stoll, 1791)
Historis acheronta (Fabricius, 1775)
Historis odius (Fabricius, 1775)
Marpesia furcula (Fabricius, 1793)
Marpesia iole (Drury, 1782)
Marpesia chiron (Fabricius, 1775)
Marpesia berania (Hewitson, 1852)
Marpesia crethon (Fabricius, 1776)
Marpesia petreus (Cramer, 1776)
Marpesia themistocles (Fabricius, 1793)

Nessaea obrina lesoudieri Le Moult, 1933
Nessaea hewitsonii hewitsonii (Felder & Felder, 1859)
Nica flavilla (Godart, 1824)
Panacea prola (Doubleday, 1848)
Panacea procilla (Hewitson, 1854)
Panacea regina (Bates, 1864)
Paulogramma pyracmon (Godart, 1824)
Peria lamis (Cramer, 1780)
Pyrrhogyra neaerea (Linnaeus, 1758)
Pyrrhogyra otolais (Bates, 1864)
Pyrrhogyra crameri (Aurivillius, 1882)
Smyrna blomfildia (Fabricius, 1782)
Temenis pulchra (Hewitson, 1861)
Temenis laothoe (Cramer, 1777)
Tigridia acesta (Linnaeus, 1758)
Vila azeca (Doubleday, 1848)

Charaxinae 26
Agrias claudina (Godart, 1824)
Agrias hewitsonius Bates, 1860
Agrias amydon Hewitson, 1854
Archaeoprepona licomedes (Cramer, 1777)
Archaeoprepona demophoon (Hübner, 1814)
Archaeoprepona demophon (Linnaeus, 1758)
Archaeoprepona amphimachus (Fabricius, 1775)
Coenophlebia archidona Felder & Felder, 1862
Consul fabius aequatorialis (Butler, 1875)
Fountainea ryphea ryphea (Cramer, 1776)
Fountainea eurypyle (Felder & Felder, 1862)
Hypna clytemnestra (Cramer, 1777)
Memphis morvus (Fabricius, 1775)
Memphis florita (Druce, 1877)
Memphis sp.
Memphis philumena philumena (Doubleday, 1849)
Memphis arachne (Cramer, 1776)
Memphis xenocles (Westwood, 1850)
Memphis offa (Druce, 1877)
Memphis oenomais (Boisduval, 1870)
Memphis polycarmes (Fabricius, 1775)
Prepona pheridamas (Cramer, 1777)
Prepona laertes (Hübner, 1814)
Prepona pylene Hewitson, 1854
Siderone marthesia (Cramer, 1777)
Zaretis itys (Cramer, 1777)

Apaturinae 8
Doxocopa cherubina (Felder & Felder, 1867)
Doxocopa clothilda (Felder & Felder, 1867)
Doxocopa cyane (Latreille, 1813)
Doxocopa felderi (Godman & Salvin, 1884)
Doxocopa laure (Drury, 1773)
Doxocopa pavon (Latreille, 1809)
Doxocopa sp.
Doxocopa agathina (Cramer, 1777)

Morphinae 8
Antirrhea avernus (Hopffer, 1874)
Antirrhea sp.
Morpho achilles (Linnaeus, 1758)
Morhpo adonis (Cramer, 1776)
Morpho deidamia (Hübner, 1819)
Morpho hecuba (Linnaeus, 1771)
Morpho menelaus (Linnaeus, 1758)
Morpho rhetenor (Cramer, 1776)

Brassolinae 15
Brassolis sophorae (Linnaeus, 1758)
Caligo illioneus (Cramer, 1776)
Caligo idomeneus (Linnaeus, 1758)
Caligo eurilochus (Cramer, 1776)
Caligo placidianus (Staudinger, 1887)
Caligo euphorbus (Felder & Felder, 1862)
Catoblepia xanthicles (Godman & Salvin, 1881)
Catoblepia berecynthia (Cramer, 1777)
Catoblepia xanthus (Linnaeus, 1758)
Eryphanis polyxena (Meerburgh, 1780)
Opoptera aorsa (Godart, 1824)
Opsiphanes quiteria (Cramer, 1782)
Opsiphanes invirae (Hübner, 1808)
Opsiphanes cassiae (Linnaeus, 1758)
Selenophanes cassiope (Cramer, 1776)

Satyrinae 68
Amphidecta calliomma (Felder & Felder, 1862)
Amphidecta pignerator (Butler, 1867)
Bia actorion (Linnaeus, 1763)
Caeruleuptychia coelica (Hewitson, 1869)
Caeruleuptychia nr. pencillata
Caeruleuptychia sp. 2
Caeruleuptychia aegrota (Butler 1867)
Caeruleuptychia pilata (Butler, 1867)
Caeruleuptychia sp. 1
Cepheuptychia cephus (Fabricius, 1775)
Chloreuptychia herseis (Godart, 1824)
Chloreuptychia chloris (Cramer, 1782)

Chloreuptychia tolumnia (Cramer, 1777)
Chloreuptychia arnaca (Fabricius, 1776)
Chloreutychia agatha (Butler, 1867)
Cissia proba (Weymer, 1911)
Cissia terrestris (Butler, 1867)
Cissia penelope (Fabricius, 1775)
Cissia sp. 2
Cissia myncea (Cramer, 1782)
Cissia sp. 1
Cithaerias aurora (Felder & Felder, 1862)
Erichthodes erichtho (Butler, 1867)
Euptychia sp. 3
Euptychia sp. 4
Euptychia sp. 1
Euptychia picea (Butler, 1867)
Euptychia sp. 2
Haetera piera (Linnaeus, 1758)
Hermeuptychia hermes (Fabricius, 1775)
Magneuptychia analis (Godman, 1905)
Magneuptychia tricolor (Hewitson, 1850)
Magneuptychia modesta (Butler, 1867)
Magneuptychia alcinoe (Felder & Felder, 1867)
Magneuptychia ocypete (Fabricius, 1776)
Magneuptychia ayaya (Butler, 1867)
Magneuptychia nr. helle 1
Magneuptychia nr. helle 2
Magneuptychia nr. inani
Magneuptychia libye (Linnaeus, 1767)
Magneuptychia sp.
Manataria hyrnethia (Fruhstorfer, 1912)
Megeuptychia antonoe (Cramer, 1776)
Pareuptychia hesionides (Forster, 1964)
Pareuptychia ocirrhoe (Fabricius, 1776)
Pareuptychia sp.
Pierella lena (Linnaeus, 1767)
Pierella lamia (Sulzer, 1776)
Pierella hortona (Hewitson, 1854)
Pierella astyoche (Erichson, 1848)
Posttaygetis penelea (Cramer, 1777)
Pseudodebis sp.
Pseudodebis valentina (Cramer, 1780)
Pseudodebis marpessa (Hewitson, 1862)
Splendeuptychia nr. itonis
Splendeuptychia itonis (Hewitson, 1862)
Splendeuptychia sp. 1
Taygetis celia (Cramer, 1780)
Taygetis armillata (Butler, 1868)
Taygetis sosis (Hopffer, 1874)
Taygetis cleopatra (Felder & Felder, 1867)
Taygetis virgilia (Cramer, 1776)
Taygetis rufomarginata (Staudinger, 1888)
Taygetis thamyra (Cramer, 1779)
Taygetis laches (Fabricius, 1793)
Taygetis mermeria (Cramer, 1776)
Yphthimoides erigone (Butler, 1867)
Yphthimoides renata (Cramer, 1782)

Danainae 4
Danaus plexippus (Linnaeus, 1758)
Lycorea ilione (Cramer, 1776)
Lycorea pasinuntia brunnea Riley, 1919
Lycorea cleobaea atergatis Doubleday, 1847

Ithomiinae 58
"Hypoleria" orolina orolina (Hewitson, 1861)
"Hypoleria" seba oculata Haensch, 1903
"Pseudoscada" florula aureola (Hewitson, 1855)
Aeria eurimedea negricola (Felder & Felder, 1865)
Callithomia lenea zelie Guérin, 1844
Callithomia alexirrhoe butes Godman & Salvin, 1898
Ceratinia tutia poecila (Bates, 1862)
Ceratiscada hymen (Haensch, 1905)
Dircenna loreta loreta Haensch, 1903
Forbestra equicola equicoloides (Godman & Salvin, 1898)
Forbestra olivencia juntana (Haensch, 1903)
Godyris zavaleta matronalis (Weymer, 1883)
Godyris dircenna dircenna (Felder & Felder, 1862)
Heterosais nephele nephele (Bates, 1862)
Hyalyris coeno norellana (Haensch, 1903)
Hypoleria lavinia chrysodonia (Bates, 1862)
Hypoleria sarepta aureliana (Bates, 1862)
Hyposcada anchiala ecuadorina Bryk, 1953
Hyposcada illinissa ida Haensch, 1903
Hyposcada kena kena (Hewitson, 1872)
Hypothyris moebiusi unicolora (Tessmann, 1928)
Hypothyris mamercus mamercus (Hewitson, 1869)
Hypothyris euclea intermedia (Butler, 1873)
Hypothyris anastasia honesta (Weymer,

1883)
Hypothyris moebiusi moebiusi (Haensch, 1903)
Hypothyris semifluva satura (Haensch, 1903)
Hypothyris anastasia bicolor (Haensch, 1903)
Hypothyris fluonia berna (Haensch, 1903)
Ithomia salapia salapia Hewitson, 1853
Ithomia salapia travella Haensch, 1903
Ithomia amarilla amarilla Haensch, 1903
Ithomia agnosia agonsia Hewitson, 1855
Mechanitis mazaeus mazaeus Hewitson, 1860
Mechanitis mazaeus fallax Butler, 1873
Mechanitis mazaeus visenda Butler, 1877
Mechanitis messenoides messenoides Felder & Felder, 1865
Mechanitis polymnia dorissides Staudinger, 1844
Mechanitis lysimnia elisa (Guérin, 1844)
Melinaea mnasias abtigua Brown, 1977
Melinaea menophilus cocana Haensch, 1903
Melinaea marsaus monthone Hewitson, 1860
Melinaea maelus maenois Hewitson, 1869
Methona curvifascia curvifascia Weymer, 1883
Methona confusa psamathe Godman & Salvin, 1898
Napeogenes achaea achaea (Hewitson, 1869)
Napeogenes aethra aethra (Hewitson, 1869)
Napeogenes inachia avila Haensch, 1903
Napeogenes stella (Hewitson, 1855)
Napeogenes sylphis caucayaensis Fox & Real, 1971
Napeogenes pharo pharo (Felder & Felder, 1862)
Oleria gunilla lota (Hewitson, 1872)
Oleria tigilla tigilla (Weymer, 1899)
Oleria sexmaculata sexmaculata (Haensch, 1903)
Oleria lerda lerda (Haensch, 1909)
Oleria agarista agarista (Felder & Felder, 1862)
Oleria assimilis assimilis (Haensch, 1903)
Pseudoscada timna timna (Hewitson, 1855)
Pteronymia vestilla sparsa Haensch, 1903
Scada reckia ethica (Hewitson, 1861)
Thyridia psidii ino Felder & Felder, 1862
Tithorea harmonia hermias Godman & Salvin, 1898

Riodinidae 194
Adelotypa amasis (Hewitson, 1870)
Adelotypa alector Butler, 1867
Adelotypa senta (Hewitson, 1853)
Adelotypa sp. 1
Adelotypa sp. 2
Adelotypa sp. 3
Adelotypa sp. 4
Alesa amesis (Cramer, 1777)
Alesa sp.
Alesa telephae (Boisduval, 1836)
Amarynthis meneria (Cramer, 1776)
Ancyluris aulestes (Cramer, 1777)
Ancyluris meliboeus (Fabricius, 1777)
Anteros acheus (Stoll, 1781)
Anteros allectus Westwood, 1851
Argyrogrammana sp. 3
Argyrogrammana sp. 1
Argyrogrammana sp. 2
Argyrogrammana trochilia Westwood, 1851
Calospila trinitatis (Lathy, 1932)
Calospila parthaon (Dalman, 1823)
Calospila sp.
Calospila maeonides ?
Calospila rhodope (Hewitson, 1853)
Calospila emylius (Cramer, 1775)
Calydna punctata Felder & Felder, 1861
Caria trochilus Erichson, 1818
Caria sponsa Staudinger, 1888
Caria mantinea (Felder & Felder, 1861)
Caria nr. mantinea
Chalodeta theodora (Felder & Felder, 1862)
Chalodeta chaonitis (Hewitson, 1866)
Chalodeta lypera (Bates, 1868)
Chamaelimnas briola Bates, 1868
Charis nr. anius
Charis cleonus (Stoll, 1782)
Charis anius (Cramer, 1776)
Charis sp.
Cremna actoris (Cramer, 1776)
Crocozona caecias (Hewitson, 1866)
Cyrenia martia Westwood, 1851
Emesis ocypore (Geyer, 1837)
Emesis nr. lucinda 1
Emesis nr.lucinda 2
Emesis sp.
Emesis temesa (Hewitson, 1877)
Emesis fatima (Cramer, 1780)
Emesis lucinda (Cramer, 1775)
Eshtemopsis celina Bates, 1868
Eunogyra satyrus Westwood, 1851
Eurybia silaceana Stichel, 1924
Eurybia latifasciata Hewitson, 1869
Eurybia lamia (Cramer, 1777)
Eurybia nicaeas Fabricius, 1775
Eurybia sp.
Eurybia jemima Hewitson, 1869
Eurybia dardus Fabricius, 1787
Eurybia cyclopia Stichel, 1910
Euselasia uria (Hewitson, 1855)
Euselasia urites gr.
Euselasia mirania (Bates, 1868)
Euselasia sp. 1
Euselasia sp. 4

Euselasia sp. 2
Euselasia sp. 3
Euselasia pellonia Stichel, 1919
Euselasia orfita (Cramer, 1777)
Euselasia opalescens (Hewitson, 1855)
Euselasia sp. 8
Euselasia lysias gr.
Euselasia melaphaea (Hübner, 1823)
Euselasia lysimachus (Staudinger, 1888)
Euselasia sp. 5
Euselasia sp. 6
Euselasia euriteus (Cramer, 1777)
Euselasia issoria Hewitson, 1869
Euselasia hygenius gr.
Euselasia hahneli Butler, 1874
Euselasia gelanor (Stoll, 1780)
Euselasia sp. 7
Euselasia fabia?
Euselasia everitus (Hewitson, 1855)
Euselasia euryone (Hewitson, 1856)
Euselasia nr. euriteus
Euselasia crotopus gr. 2
Euselasia euoras (Hewitson, 1856)
Euselasia eumenes (Hewitson, 1855)
Euselasia eumedia (Hewitson, 1855)
Euselasia eulione (Hewitson, 1856)
Euselasia crotopus gr. 1
Euselasia crinon Stizhel, 1919
Euselasia arbas (Stoll, 1782)
Euselasia anica gr.
Hyphilaria parthenis (Westwood, 1851)
Hyphilaria nicia (Hübner, 1819)
Ithomiola cascella (Hewitson, 1870)
Juditha molpe (Hübner, 1808)
Lasaia agesilas (Latreille, 1813)
Lasaia sp.
Lasaia pseudomeris Clench, 1972
Leucochimona nr. philemon
Leucochimona hyphea (Cramer, 1776)
Lyropteryx apollonia Westwood, 1851
Melanis xarifa (Hewitson, 1853)
Mesene nola Herrich-Schäffer, 1893
Mesene hya Westwood, 1851
Mesophthalma idotea (Westwood, 1851)
Mesosemia sp. 3
Mesosemia steli Hewitson, 1858
Mesosemia philocles Linnaeus, 1758
Mesosemia sp. 2
Mesosemia judicialis Butler, 1874
Mesosemia sp. 1
Mesosemia eumene (Cramer, 1776)
Mesosemia nr. judicialis
Mesosemia loruhama Hewitson, 1869
Mesosemia cippus (Hewitson, 1859)
Mesosemia nr. cyanira
Mesosemia nr. ephyne
Mesosemia sp. 5
Mesosemia sp. 4
Mesosemia melpia (Hewitson, 1869)
Mesosemia gertraudis Stichel, 1910
Mesosemia ulrica (Cramer, 1777)
Mesosemia nr. thetys
Mesosemia nr. tenebricosa
Mesosemia magate?
Mesosemia nina (Herbst, 1793)
Metacharis lucius (Fabricius, 1793)
Metacharis nr. regalis
Metacharis regalis Butler, 1867
Methone cecilia (Cramer, 1777)
Monethe albertus Felder & Felder, 1862
Mycastor nealces (Hewitson, 1871)
Napaea melampia (Bates, 1867)
Notheme eumeus (Fabricius, 1781)
Nymphidium baoetia (Hewitson, 1853)
Nymphidium cachrus (Fabricius, 1787)
Nymphidium caricae (Linnaeus, 1758)
Nymphidium leucosia (Hübner, 1806)
Nymphidium nr. derufata
Nymphidium nr. lisimon
Nymphidium sp.
Nymphidium mantus (Cramer, 1775)
Nymphidium minuta gr.
Nymphidium omois Hewitson, 1865
Pandemos pasiphae (Cramer, 1775)
Parcella amarynthina (Felder & Felder, 1865)
Parnes philotes Westwood, 1851
Parnes nycteis Westwood, 1851
Perophthalma tullius Fabricius, 1787
Rhetus periander (Cramer, 1777)
Riodina lysippus (Linnaeus, 1798)
Sarota sp. 2
Sarota acantus (Stoll, 1782)
Sarota chrysus (Stoll, 1782)
Sarota sp. 3
Sarota sp. 1
Semomesia sp.
Setabis sp.
Setabis epitus (Cramer, 1780)
Setabis salvini?
Setabis buckleyi (Grose-Smith, 1898)
Stalachtis euterpe (Linnaeus, 1758)
Stalachtis calliope (Linnaeus, 1758)
Symmachia probetor (Stoll, 1782)
Symmachia sp.
Symmachia calligraphia (Hewitson, 1867)
Symmachia accusatrix Westwood, 1851
Symmachia asclepia Hewitson, 1870
Synargis gela (Hewitson, 1853)
Synargis sp.
Synargis abaris (Cramer, 1776)
Synargis chaonia (Hewitson, 1853)
Synargis orestesa (Cramer, 1780)

Syngaris ochra (Bates, 1868)
Syrmatia aethiops Staudinger, 1888
Teratophthalma phelina (Felder & Felder, 1862)
Themone pais (Hübner, 1820)
Theope sp.
Theope eudocia Westwood, 1851
Theope lycaenina Bates, 1868
Theope nr. thootes
Theope virgilius (Fabricius, 1793)
Thisbe fenestrella Lathy, 1932
Xynias christalla Grose-Smith, 1902
unknown (8)

Lycaenidae 59
"Thecla" hemon (Cramer, 1775)
"Thecla" bosora Hewitson, 1870
"Thecla" orobia (Hewitson, 1867)
"Thecla" gigantea Hewitson, 1867
"Thecla" maculata (Lathy, 1936)
"Thecla" cupentus (Stoll, 1781)
"Thecla" gibberosa (Hewitson, 1867)
"Thecla" tephraeus gr.
"Thecla" ophia Hewitson, 1868
"Thecla" tephraeus (Geyer, 1837)
"Thecla" phegeus (Hewitson, 1865)
"Thecla" nr. gadira
"Thecla" nr. augustinula
"Thecla" carteia Hewitson, 1870
"Thecla" ergina or ligurina
"Thecla" aruma (Hewitson, 1877)
"Thecla" nr. mycon
"Thecla" nr. empusa
"Thecla" hesperitis (Butler and Druce, 1877)
Arawacus dolylas (Cramer, 1776)
Arawacus aetolus (Sulzer, 1776)
Arcas imperialis (Cramer, 1775)
Calycopis anapa Field, 1967
Calycopis indigo (Druce, 1907)
Calycopis isobeon complex
Calycopis cerata (Hewitson, 1877)
Calycopis xenata (Hewitson, 1877)
Calycopis pisis complex 3
Calycopis pisis complex 2
Calycopis atnius complex
Calycopis calus (Godart, 1824)
Calycopis centoripa Hewitson, 1868
Calycopis pisis complex 1
Celmia celmus (Cramer, 1775)
Chalybs janias (Cramer, 1779)
Contrafacia imma Prittwitz, 1865
Cyanophrys amyntor ?
Electrostrymon ecbatana Hewitson, 1868
Eumaeus minijas (Hübner, 1809)
Evenus gabriela (Cramer, 1775)
Hypostrymon asa Hewitson, 1873
Janthecla leea Venables & Robbins, 1991
Janthecla sista Hewitson, 1867
Lamprospilus orcidia (Hewitson, 1874)
Mithras nautes (Cramer, 1779)
Ocaria ocrisia (Hewitson, 1869)
Ocaria thales (Fabricius, 1793)
Panthiades bitias (Cramer, 1777)
Panthiades aeolus (=pelion) (Fabricius, 1775)
Pseudolycaena marsyas (Linnaeus, 1758)
Rekoa palegon (Cramer, 1780)
Siderus leucophaeus (Hübner, 1818)
Strymon ziba (Hewitson, 1868)
Theclopsis lydus (Hübner, 1819)
Theclopsis gargara Hewitson, 1868
Theritas mavors (Hübner, 1818)
Thestius pholeus (Cramer, 1777)
Tmolus echion (Linnaeus, 1767)
Zizula cyna (Edwards, 1881)